

Kingston Water Sample Data

December 28, 2008

Both TVA and Tennessee Department of Environment and Conservation have collected water quality data in the area of the incident and at downstream locations.

Results of the tests are shown below. Water samples were collected by TVA from the Tennessee River near the intake of the Kingston Utility Water Treatment intake, located approximately 6 miles downstream (which is actually upstream in terms of river flow from the incident), on December 22 and 23. Routine testing will continue near this raw water intake site.

Water samples were tested for toxic metal compounds on both a dissolved and total basis, to account for material suspended in the water, like silt, organic particles and fly ash. Shown below are the results of the laboratory testing along with the standard to assess water quality.

Chemical Parameter	Drinking Water Limits			In-stream sample near Kingston Water Intake (mg/L)			
	Max. Contaminant Level (mg/L)	Secondary Limit (mg/L)	Domestic Water Supply (mg/L)	12-22-08 Sampling Analytical Results		12-23-08 Sampling Analytical Results	
				Total	Dissolved	Total	Dissolved
Aluminum	n/a	n/a	n/a	< 0.5	< 0.5	< 0.5	< 0.5
Antimony	0.006	n/a	0.006	< 0.01**	< 0.01**	< 0.01**	< 0.01**
Arsenic	0.01	n/a	0.01	< 0.005	< 0.005	< 0.005	< 0.005
Barium	2	n/a	2	< 0.2	< 0.2	< 0.2	< 0.2
Beryllium	0.004	n/a	0.004	<0.001	<0.001	<0.001	<0.001
Boron	n/a	n/a	n/a	< 0.2	< 0.2	< 0.2	< 0.2
Cadmium	0.005	n/a	0.005	< 0.001	< 0.001	< 0.001	< 0.001
Chromium	0.1	n/a	0.1	<0.02	<0.02	<0.02	<0.02
Cobalt	n/a	n/a	n/a	<0.005	<0.005	<0.005	<0.005
Copper	1.3	1	n/a	0.018	0.014	<0.01	<0.01
Iron	n/a	0.3	n/a	0.396*	< 0.05	0.311	<0.05
Lead	0.015	n/a	0.005	< 0.02**	< 0.02**	< 0.02**	< 0.02**
Magnesium	n/a	n/a	n/a	4.17	4.05	3.92	3.82
Manganese	n/a	0.05	n/a	0.054*	0.008	0.047	0.008
Mercury	0.002	n/a	0.002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Molybdenum	n/a	n/a	n/a	< 0.001	< 0.001	< 0.001	< 0.001
Nickel	0.1	n/a	0.1	< 0.02	< 0.02	< 0.02	< 0.02
Selenium	0.05	n/a	0.05	< 0.01	< 0.01	< 0.01	< 0.01
Silver	n/a	0.1	n/a	< 0.1	< 0.1	< 0.1	< 0.1
Thallium	0.002	n/a	0.002	< 0.01**	< 0.01**	< 0.01**	< 0.01**
Tin	n/a	n/a	n/a	< 0.01	< 0.01	< 0.01	< 0.01
Titanium	n/a	n/a	n/a	0.005	< 0.002	0.003	< 0.002
Zinc	n/a	5	n/a	0.152	0.122	0.024	0.023

Legend:

< , less than

* did not meet secondary drinking water standard (for aesthetics)

** the most expedient testing method available showed none of the specific chemical was present; however, confirmation using more stringent analysis capable of detecting much lower levels of these elements are being performed.

This water sampling at the Kingston water treatment utility intake showed results that met primary (human health) drinking water standards at the intake prior to processing in the water treatment facility.

With the exception of slight elevations in the iron and manganese concentrations on 12-22-08, the intake water met secondary (aesthetic) drinking water standards. These are non-toxic chemicals and are removed by the utility water treatment process. Iron and manganese levels are at levels normally present in the Tennessee River.

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